REMARKS

Claims 2, 3, and 10-12 are pending in this application, claims 1 and 4-9 having been cancelled as being directed to non-elected inventions and claims 10-12 being newly added by the above amendment. Of these claims, claim 2 stands rejected under 35 USC §102(b) as being anticipated by Ferran et al. and claim 3 stands rejected under 35 USC §103(a) as being unpatentable over Virdee et al. It is presumed that the Examiner meant Ferran et al. in view of Virdee et al.

In view of the preceding amendments and the following remarks, these rejections are traversed, and reconsideration of this application is respectfully requested.

Applicant's claimed invention is a protocol adapter that operates as a diagnostic tool for transferring diagnostic signals between a computer and a vehicle network. Applicant has clearly set forth in the specification that the protocol adapter supports several different protocols so that old and new software are compatible with old and new hardware. Independent claim 2 has been amended above to more specifically state that the protocol adapter transfers diagnostic signals between in-vehicle networks and a computer, that the protocol adapter includes circuitry having an RS232 bus for transferring diagnostic signals for a plurality of different protocols, and that the protocol adapter includes a device for indicating activity on the RS232 bus including identifying the particular protocol being used. New independent claims 10-11 include specific limitations to the device as being one or more LEDs. Support for this can be found in the specification at least at page 3, paragraph 4.

U.S. Patent No. 4,720,807 issued to Ferran et al. disclosed an apparatus and method for controlling the pressure in a system by continuously measuring the pressure

and comparing it to a desired set pressure. The Ferran et al. apparatus is specifically

for an industrial process. Ferran et al. does not appear to even mention a vehicle or an

in-vehicle network, and clearly does not teach or suggest a protocol adapter that

transfers diagnostic signals between in-vehicle networks and a computer for a plurality

of different protocols. Applicant respectfully submits that Ferran et al. did not anticipate

Applicant's original claim 2, and clearly cannot anticipate amended claim 2.

The Examiner has directed Applicant's attention to column 18, lines 13-24,

recreated below:

> After the motor is stepped as necessary, control is
> transferred along a path 1122 to an activity block 1124
> wherein the CPU 100 services any communication requests
> which may come in on the RS232 bus 156 (FIG. 1) or which
> need to be transmitted on the RS232 150. Furthermore, the
> CPU 100 will monitor the activity of the lines connected to
> the logic connector 120 (FIG. 1) to determined whether any
> manual requests for changes have occurred. Thereafter,
> control is transferred along a path 1126 back to the activity
> block 1100 wherein the CPU 100 waits for the next one
> millisecond interrupt and repeats the steps described above.

This section of Ferran et al. does mention a CPU 100 and a RS232 bus 156. However,

this section, or any other section of Ferran et al., does not teach or suggest a protocol

adapter for transferring diagnostic signals between a computer and in-vehicle networks

as discussed above. Further, this section, or any other section of Ferran et al., does not

teach or suggest a protocol adapter including an RS232 bus that transfers diagnostic

signals for a plurality of different protocols. Also, this section, or any other section of

Ferran et al., does not teach or suggest a protocol adapter including a device for

indicating that signals are being transferred on the RS232 bus that also indicates which

of the plurality of protocols is being used. Therefore, Applicant respectfully submits the

§102(b) rejection should be withdrawn.

U.S. Patent No. 6,320,876 issued to Virdee et al. discloses an N:1 transcoder,

and also has nothing to do with a protocol adapter for transferring diagnostic signals

between in-vehicle networks and a computer. The Examiner has directed Applicant's

attention to column 4, lines 41-62, recreated below:

> Controller circuits CONTROLLER_A and CONTROLLER_B 134 and 136 provide for the communication and control between all functional circuits via a control bus 138. Control bus 138 may include a data bus, address bus, and control lines. Controller circuits 134 and 136 may select a control and/or communication target by using the control lines and further select specific locations with the target circuit by using the address bus. A watchdog timer may be used to continually monitor the operation of controller circuits 134 and 136. If a failure is detected in one controller circuit, the watchdog timer times out and deactivates the currently active controller circuit and activating the redundant controller circuit. Controller circuits 134 and 136 also may communicate control parameters to echo cancellers (ECC) 102-110 via an additional bus. Controller circuits 134 and 136 further have access to a front panel 140, which may provide some visual alarm indicators, such as LEDs or an alphanumeric display, and RS232 connections to local and remote terminals as well as to any co-located transcoders. A manual control 142 may further provide a menu-driven input for a user to enter transcoder control and operational parameters.

That section of Virdee et al. does state that controller circuits 134 and 136 have access

to a front panel 140 that may provide some visual alarm indicators, such as LEDs or an

alphanumeric display, and RS232 connections to local and remote terminals. However,

the controller circuits 134 and 136 and the front panel 140 are not part of a protocol

adapter, especially a protocol adapter that transfers diagnostic signals for a plurality of
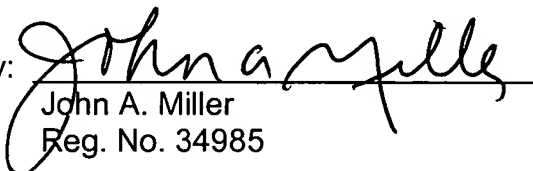
different protocols between in-vehicle networks and a computer. This section of Virdee et al. does talk about providing visual indication using LEDs, and providing RS232 connections. However, this section of Virdee et al. does not state that the visual indications by the LEDs provide an indication that the RS232 bus has activity or which protocol is being used. This section merely states that visual LED indicators and RS232 connections are provided on the front panel 140, none of which has anything to do with a protocol adapter for transferring diagnostic signals. It is therefore respectfully requested that the §103(a) rejection be withdrawn.

It is now believed that this application is in condition for allowance. If the Examiner believes that personal contact with Applicant's representative would expedite prosecution of this application, he is invited to call the undersigned at his convenience.

Respectfully submitted,

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